

<p align="center"><b>6 BALANCES</b></p>	<p align="center">Page 1 of 2</p>
<p align="center"><b>Division of Forensic Science</b></p> <p align="center"><b>CONTROLLED SUBSTANCES TRAINING MANUAL</b></p>	<p>Amendment Designator:</p>
	<p>Effective Date: 8-December-2003</p>
<p align="center"><b>6 BALANCES</b></p> <p><b>6.1 Objectives</b></p> <p>6.1.1 To familiarize the trainee with the operation of laboratory balances</p> <p>6.1.2 To familiarize the trainee with balance calibration and quality assurance</p> <p>6.1.3 To familiarize the trainee with the recording and reporting of weights in laboratory notes and Certificates of Analysis</p> <p><b>6.2 Modes of Instruction</b></p> <p>6.2.1 Self-directed study through reading assignments</p> <p>6.2.2 Presentations and demonstrations regarding use of balances by the TC</p> <p><b>6.3 Reference</b></p> <p>6.3.1 Balance manufacturer's operating manuals</p> <p>6.3.2 DFS Controlled Substances Procedures Manual, Weighing Practices Section</p> <p><b>6.4 Assignments</b></p> <p>6.4.1 Practical exercise</p> <p>6.4.2 Study questions</p> <p><b>6.5 Study Questions</b></p> <p>6.5.1 Define the following:</p> <ul style="list-style-type: none"> <li>• Accuracy</li> <li>• Precision</li> <li>• Balance</li> <li>• Analytical balance</li> <li>• Certified weight</li> <li>• Tare</li> <li>• Trace amount / Residue</li> <li>• Truncate</li> </ul> <p>6.5.2 Explain the quality assurance program for balances in the Controlled Substance's section. How is it documented? Is balance calibration done with an internal or external weight?</p> <p>6.5.3 What types of weights are used for balance QA? Are they traceable?</p> <p>6.5.4 What is the accuracy of the balances in your laboratory?</p> <p>6.5.5 What is the mathematical conversion between grams and ounces?</p> <p>6.5.6 What is the difference between the troy and avoirdupois weighing systems?</p>	

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<p><b>6.6 Practical Exercise</b></p> <p>6.6.1 Check the performance of your balances following the quality assurance plan.</p> <p>6.6.2 Weigh the following objects on your top-loading balance and the analytical balance. Record the weights as in case notes and designate the weight to be reported on a Certificate of Analysis.</p> <ul style="list-style-type: none"> <li>• Ten marijuana seeds</li> <li>• Weighing paper – various sizes</li> <li>• Weigh boats – various sizes</li> <li>• Contents of a “Sweet ‘n Low” package</li> </ul> <p><b>6.7 Modes of Evaluation</b></p> <p>6.7.1 Written examination</p> <p align="right">♦ End</p>	